IN THE CLAIMS:

A complete listing of the claims and their status as of this Amendment is as follows:

1. ~~10.~~(Currently amended) A process for the production of wear-resistant, coated surfaces with at least two electrodes, connected to a voltage source, which are disposed in or are adjacent a reaction space through which an electrolyte flows and in which the surface to be coated is located, the process comprising:

providing a workpiece having a surface to be coated;

exposing said surface of said workpiece to the flow of an electrolyte, said electrolyte flow being in a defined direction;

selectively reversing the flow of the electrolyte at least once during the coating process ~~for an amount of time as a function of the~~ to provide said surface of said workpiece with a coating of selected thickness and form ~~of the surface of the workpiece before or during the coating process~~; and

thereby forming an oxide layer (Al_2O_3) on ~~a~~ said surface ~~selected from the group consisting of aluminum and aluminum alloy~~.

2. ~~11.~~(Currently amended) The process according to claim ~~1~~ 1, wherein the method comprises reversing flow based on precalculated flow times.

3. ~~12.~~(Currently amended) The process according to claim ~~1~~ 1, wherein ~~the~~ said defined direction of flow of said electrolyte ~~flows in a certain direction~~ is determined as a function of the form of ~~the~~ said surface of ~~the~~ said workpiece before the coating process.

4. ~~13.~~(Currently amended) The process according to claim 1, wherein ~~the method comprises coating a~~ said surface ~~which~~ of said workpiece to be coated is curved.

5. ~~14.~~(Currently amended) The process according to claim 1, wherein ~~the method~~

~~comprises coating a~~ said surface ~~which~~ of said workpiece for coating is ~~plane~~ planar.

6. ~~15.~~ (Currently amended) The process according to claim ~~10~~ 1, wherein the method comprises selectively reversing said electrolyte flow to develop different layer thicknesses on ~~the~~ said surface to be coated.

7. ~~16.~~ (Currently amended) The process according to claim ~~10~~ 1, wherein the method comprises selecting a workpiece having a ~~frusto-conical~~ conically-shaped void formed therein and selectively reversing the flow of electrolyte to form an oxide layer defining a generally cylindrical void.

8. ~~17.~~ (Currently amended) The process according to claim ~~10~~ 1, wherein the method comprises disposing at least two connecting lines in communication with the working surface, where a first connecting line serves as the inlet and a second connecting line serves as the outlet for the electrolyte which can be transported with the aid of a feed line and at least two electrodes, connected to a voltage source, which are disposed in communication with the reaction space, and a change-over device for selectively reversing flow through the inlet and the outlet.

9. ~~18.~~ (Currently amended) The process according to claim ~~10~~ 8 wherein the method comprises forming one electrode from the surface to be coated.

10. ~~19.~~ (Currently amended) ~~A workpiece having defining a valve hole with a~~ The process according to claim ~~10~~ 1 wherein said surface ~~which is generally conical and an oxide coating with a distribution of layer thicknesses so that the~~ to be coated ~~surface has a cylindrical form~~ is comprised of aluminum or aluminum alloy such that an oxide layer is formed thereon.

11. ~~20.~~ (Currently amended) An apparatus for the production of wear-resistant

surfaces ~~with~~ having a reaction space ~~comprising~~ connected to at least two connecting lines where a first connecting line serves as the inlet and a second connecting line serves as the outlet for an electrolyte which can be transported with the aid of a feed line, and at least two electrodes, connected to a voltage source, which are disposed in communication with the reaction space, and a change-over device for selectively reversing flow through ~~the~~ said inlet and ~~the~~ said outlet.

12. ~~21.~~(Currently amended) The apparatus according to claim ~~20~~ 11 wherein at least one electrode ~~if~~ is formed from a ~~working~~ surface to be coated, ~~the working~~ said surface being selected from the group consisting of aluminum and an aluminum alloy.

13. ~~22.~~(Currently amended) The apparatus according to claim ~~20~~ ~~21~~ 12, wherein ~~the~~ ~~working~~ said surface to be coated is curved.

14. ~~23.~~(Currently amended) The apparatus according to claim ~~22~~ ~~21~~ 12, wherein ~~the~~ ~~working~~ said surface to be coated is cylindrical.

15. ~~24.~~(Curently amended) The apparatus according to claim ~~23~~ ~~21~~ 12, wherein ~~the~~ ~~working~~ said surface to be coated defines a plane.

Please add the following new claims:

16. ~~25.~~(New) A process for the production of wear-resistant coated surfaces, comprising:

providing an electrolytic apparatus comprising a reaction space through which an electrolyte is flowable, at least two electrodes connected to a voltage source and disposed adjacent to or in said reaction space;

providing a workpiece having a surface to be coated;

placing said surface to be coated in said reaction space;

directing the flow of an electrolyte through said reaction space in a defined direction;

and

selectively reversing the flow of said electrolyte at least once during the coating process to form a coating on said surface of selected thickness and form.

17. 26. (New) The process as set forth in claim 25 wherein said workpiece is configured with an opening therethrough having a first end with a diameter $Ø_1$ and a second end with a diameter $Ø_2$ and an inner surface to be coated extending between said first end and said second end, and wherein the time for coating said surface is determined by the equation:

$$\Delta Ø = Ø_{\text{setting value}} - K(Ø_1 + Ø_2)/2,$$

where $Ø_{\text{setting value}}$ is the selected diameter thickness and K is a constant.

18. 27. (New) The process as set forth in claim 26 wherein $Ø_1$ does not equal $Ø_2$ before and after the coating process.

19. 28. (New) The process as set forth in claim 26 wherein $Ø_1$ does not equal $Ø_2$ before the coating process and $Ø_1$ and $Ø_2$ are equal after the coating process.

20. 29. (New) The process as set forth in claim 25 wherein said surface to be coated is connected to said electrolytic apparatus as the anode.

21. 30. (New) The process as set forth in claim 25 wherein said surface to be coated is formed from aluminum or an alloy thereof.